

This response is timely filed as it is accompanied by a petition for an extension of time to file in the third month and the requisite fee.

Objection-Specification

The examiner objected to claim 21 for the language “An isolated A polypeptide...” By the foregoing amendment to claim 21, the applicants have corrected this typographical error. Therefore, the applicants request the withdrawal of this objection.

35 U.S.C. §112, First Paragraph

The examiner rejected claims 21-29 under 35 U.S.C. §112, first paragraph as allegedly containing subject matter that was not described in the specification in such a way as to reasonably convey to one skilled in the art that the inventors, at the time the application was filed, had possession of the claimed invention. Essentially, the examiner alleges, for the reasons stated above in the objection to the specification, that SEQ ID NO: 6 is new matter.

For the reasons stated above, *i.e.*, proper identification of the source of SEQ ID NO:6, the applicants submit that this rejection is now moot and therefore request that the rejection of claims 21-29 under 35 U.S.C. §112, first paragraph be withdrawn.

35 U.S.C. §102(a)

The examiner rejected claims 21 under 35 U.S.C. §102(a) for allegedly being anticipated by Just *et al.* Essentially, it is the examiner’s position that since SEQ ID NO: 6 has a 78.7% homology to a sequence disclosed in the cited document and claim 21 contains the language “portions thereof,” that in the broadest sense, the claims are anticipated by the cited document.

The applicants submit that this rejection is now moot. Specifically, and only to expedite prosecution, and without prejudice to the applicants’ right to seek a broader claim in a continuing application, the applicants have removed such language from claim 21.

Therefore, the applicants request the withdrawal of the rejection of claim 21 based upon 35 U.S.C. §102(a).

**III. CONCLUSION**

In view of the foregoing, the claims are now believed to be in form for allowance, and such action is hereby solicited. If any point remains in issue which the examiner feels may be best resolved through a personal or telephone interview, the examiner is *strongly urged* to contact the undersigned at the number indicated below.

Respectfully submitted,

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Appendix

Version With Markings To Show Changes Made

IN THE SPECIFICATION

The paragraph beginning at page 2, line 7 of the specification was replaced with the following paragraph.

--Several different species of the genus Clostridium produce large molecular weight (250-300 kDa) cytotoxins which cause effects on the actin cytoskeleton, including disruption of actin stress fibers and rounding up of cell bodies. This sub-group of clostridial cytotoxins includes toxins A and B from *Clostridium difficile*, lethal toxin (LT) (SEQ ID NO: 6, see Green et al., Gene, 161:57-61, 1995) and hemorrhagic toxin (HT) from *Clostridium sordellii* and *Clostridium novyi*  $\alpha$ -toxin (Bette, P., et al., Toxicon 29 (1991) 877-887). Enterotoxin A and cytotoxin B have been characterized by Sullivan, N.M. et al., Infect. Immun. 35 (1982) 1032-1040, von Eichel-Streiber, C., et al., Microbiol. Pathogenesis 2 (1987) 307-318. Toxin A and toxin B are glucosyltransferases which modify threonine 37 of the GTPase Rho. By attracting of glucose at this position of Rho, this GTPase is blocked in its function. Recently, toxin B and toxin A from *C. difficile*, the causative agent of antibiotic-associated diarrhea (Lyerly, D.M., et al., Clin. Microbiol. Rev. 1 (1988) 1-18), were shown to covalently modify the mammalian protein Rho by UDP-Glc dependent glucosylation of threonine 37 (Just, I. et al., Nature 375 (1995) 500-503; Just, I., et al., J. Biol. Chem. 270 (1995) 13932-12936). Rho is a small ras related GTP-binding protein involved in the control of actin polymerization (Hall, A., Ann. Rev. Cell Biol. 10 (1994) 31-34). Glucosylation of threonine 37 of Rho by *C. difficile* toxins A or B apparently inactivates this protein and results in a loss of actin stress-fiber assembly.--